

# Notice of Allowability

Application No.

10/707,407

Examiner

Chih-Cheng Glen Kao

Applicant(s)

IKHLEF ET AL.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/28/07.
2. ☒ The allowed claim(s) is/are 1-4, 7, 9, 12-15, 18-21 and 24-30.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*.Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application.
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. The application has been amended as follows:

In claim 27, line 1, replace "30wherein" with "--30 wherein--".

### *Reasons for Allowance*

3. Claims 1-4, 7, 9, 12-15, 18-21, and 24-30 are allowed. The following is an examiner's statement of reasons for allowance.

4. Regarding claim 1, prior art fails to disclose or fairly suggest a CT detector, including an optical mask formed of optical absorbing material and arranged and extended in major part along a third plane parallel to first and the second planes, and disposed between a scintillator array and a photodiode array without encroachment upon any of the first plane or the second plane, the optical mask configured to reduce optical transference between a scintillator and a neighboring photodiode, the optical mask located closer to the scintillator array than the plurality of photodiodes, in combination with all the limitations in the claim. Claims 2-4, 7, and 26 are allowed by virtue of their dependency.

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5. Regarding claim 15, prior art fails to disclose or fairly suggest a CT system, including an array of optical cross-talk inhibitors formed of optically absorbent material and interstitially layered between, without encroachment upon, a layer of an array of scintillators and a layer of an array of photodiodes, the array of optical cross-talk inhibitors located closer to the layer of the array of scintillators than the array of photodiodes, the array of optical cross-talk inhibitors located in a layer that comprises a substantially same major orientation as the layer of the array of scintillators and the layer of the array of photodiodes, in combination with all the limitations in the claim. Claims 18, 19, and 28 are allowed by virtue of their dependency.

6. Regarding claim 20, prior art fails to disclose or fairly suggest a method of CT detector manufacture, including the steps of providing an optical cross-talk mask, wherein providing an optical cross-talk mask includes the step of forming a grid of light-absorbing elements, and arranging a cellular arrangement of scintillators, a cellular arrangement of photodiodes, and the optical cross-talk mask in a multi-planar stack wherein each of the cellular arrangements and the optical cross-talk mask are arranged orthogonal to a central axis of x-ray incidence on the cellular arrangement of scintillators such that the optical cross-talk mask is sandwiched between the cellular arrangement of scintillators and the cellular arrangement of photodiodes, such that the optical cross-talk mask is located closer to the cellular arrangement of scintillators than the cellular arrangement of photodiodes, and such that in the multi-planar stack a plane of the cellular arrangement of scintillators, a plane of the cellular arrangement of photodiodes, and a plane of the optical cross-talk mask comprise a substantially same major orientation, in

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combination with all the limitations in the claim. Claims 21, 24, 25, and 29 are allowed by virtue of their dependency.

7. Regarding claim 30, prior art fails to disclose or fairly suggest a CT detector, including at least one mask element of optically absorbing material arranged and extended in major part along a plane disposed between first and second scintillators and first and second photodiodes to reduce optical transference between the first scintillator and the second photodiode and the second scintillator and the first photodiode, the at least one mask element having a width that exceeds the given width separating the first and the second scintillators from one another, wherein the plane avoids intersection with any of the first scintillator, the second scintillator, the first photodiode, or the second photodiode, the at least one mask element located closer to the first and the second scintillators than the first and the second photodiodes, in combination with all the limitations in the claim. Claims 9, 12-14, and 27 are allowed by virtue of their dependency.

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Cheng Glen Kao whose telephone number is (571) 272-2492. The examiner can normally be reached on M - F (9 am to 5 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



gk

EDWARD J. GLICK  
SUPERVISORY PATENT EXAMINER

